

A-579B.ST25.txt
SEQUENCE LISTING

<110> Yoshinaga, Steven
Mak, Tak
Shahinian, Arda
Trafuri Bladt, Anna
Senaldi, Giorgio

<120> Polypeptides Involved in Immune Response

<130> A-579B

<150> 09/890,729

<151> 2000-01-27

<150> PCT/US00/01871

<151> 2000-01-27

<150> US 09/264,527

<151> 1999-03-08

<150> US 09/244,448

<151> 1999-02-03

<160> 35

<170> PatentIn version 3.0

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48

Met Lys Pro Tyr Phe Cys Arg Val Phe Val Phe Cys Phe Leu Ile Arg

1

5

10

15

ctt tta aca gga gaa atc aat ggc tcg gcc gat cat agg atg ttt tca
96

Leu Leu Thr Gly Glu Ile Asn Gly Ser Ala Asp His Arg Met Phe Ser

20

25

30

ttt cac aat gga ggt gta cag att tct tgt aaa tac cct gag act gtc
144

Phe His Asn Gly Gly Val Gln Ile Ser Cys Lys Tyr Pro Glu Thr Val

A-579B.ST25.txt

35	40	45
cag cag tta aaa atg cga ttg ttc aga gag aga gaa gtc ctc tgc gaa		
192		
Gln Gln Leu Lys Met Arg Leu Phe Arg Glu Arg Glu Val Leu Cys Glu		
50	55	60
ctc acc aag acc aag gga agc gga aat gcg gtg tcc atc aag aat cca		
240		
Leu Thr Lys Thr Lys Gly Ser Gly Asn Ala Val Ser Ile Lys Asn Pro		
65	70	75
atg ctc tgt cta tat cat ctg tca aac aac agc gtc tct ttt ttc cta		
288		
Met Leu Cys Leu Tyr His Leu Ser Asn Asn Ser Val Ser Phe Phe Leu		
85	90	95
aac aac cca gac agc tcc cag gga agc tat tac ttc tgc agc ctg tcc		
336		
Asn Asn Pro Asp Ser Ser Gln Gly Ser Tyr Tyr Phe Cys Ser Leu Ser		
100	105	110
att ttt gac cca cct cct ttt caa gaa agg aac ctt agt gga gga tat		
384		
Ile Phe Asp Pro Pro Pro Phe Gln Glu Arg Asn Leu Ser Gly Gly Tyr		
115	120	125
ttg cat att tat gaa tcc cag ctc tgc tgc cag ctg aag ctc tgg cta		
432		
Leu His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Leu Trp Leu		
130	135	140
ccc gta ggg tgt gca gct ttc gtt gtg gta ctc ctt ttt gga tgc ata		
480		
Pro Val Gly Cys Ala Ala Phe Val Val Val Leu Leu Phe Gly Cys Ile		
145	150	155
ctt atc atc tgg ttt tca aaa aag aaa tac gga tcc agt gtg cat gac		
528		

A-579B.ST25.txt

Leu Ile Ile Trp Phe Ser Lys Lys Lys Tyr Gly Ser Ser Val His Asp
165 170 175

cct aat agt gaa tac atg ttc atg gcg gca gtc aac aca aac aaa aag
576
Pro Asn Ser Glu Tyr Met Phe Met Ala Ala Val Asn Thr Asn Lys Lys
180 185 190

tct aga ctt gca ggt gtg acc tca
600
Ser Arg Leu Ala Gly Val Thr Ser
195 200

<210> 2
<211> 200
<212> PRT
<213> Mus musculus

<400> 2

Met Lys Pro Tyr Phe Cys Arg Val Phe Val Phe Cys Phe Leu Ile Arg
1 5 10 15

Leu Leu Thr Gly Glu Ile Asn Gly Ser Ala Asp His Arg Met Phe Ser
20 25 30

Phe His Asn Gly Gly Val Gln Ile Ser Cys Lys Tyr Pro Glu Thr Val
35 40 45

Gln Gln Leu Lys Met Arg Leu Phe Arg Glu Arg Glu Val Leu Cys Glu
50 55 60

Leu Thr Lys Thr Lys Gly Ser Gly Asn Ala Val Ser Ile Lys Asn Pro
65 70 75 80

Met Leu Cys Leu Tyr His Leu Ser Asn Asn Ser Val Ser Phe Phe Leu
85 90 95

Asn Asn Pro Asp Ser Ser Gln Gly Ser Tyr Tyr Phe Cys Ser Leu Ser
100 105 110

A-579B.ST25.txt

Ile Phe Asp Pro Pro Pro Phe Gln Glu Arg Asn Leu Ser Gly Gly Tyr
 115 120 125

Leu His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Leu Trp Leu
 130 135 140

Pro Val Gly Cys Ala Ala Phe Val Val Val Leu Leu Phe Gly Cys Ile
 145 150 155 160

Leu Ile Ile Trp Phe Ser Lys Lys Lys Tyr Gly Ser Ser Val His Asp
 165 170 175

Pro Asn Ser Glu Tyr Met Phe Met Ala Ala Val Asn Thr Asn Lys Lys
 180 185 190

Ser Arg Leu Ala Gly Val Thr Ser
 195 200

<210> 3
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Met Lys Pro Tyr Phe Cys Arg Val Phe Val Phe Cys Phe Leu Ile Arg
 1 5 10 15

Leu Leu Thr Gly Glu Ile Asn Gly Ser Ala Asp His Arg Met Phe Ser
 20 25 30

Phe His Asn Gly Gly Val Gln Ile Ser Cys Lys Tyr Pro Glu Thr Val
 35 40 45

Gln Gln Leu Lys Met Arg Leu Phe Arg Glu Arg Glu Val Leu Cys Glu
 50 55 60

Leu Thr Lys Thr Lys Gly Ser Gly Asn Ala Val Ser Ile Lys Asn Pro
 65 70 75 80

Met Leu Cys Leu Tyr His Leu Ser Asn Asn Ser Val Ser Phe Phe Leu
 85 90 95

Asn Asn Pro Asp Ser Ser Gln Gly Ser Tyr Tyr Phe Cys Ser Leu Ser
 100 105 110

Ile Phe Asp Pro Pro Pro Phe Gln Glu Arg Asn Leu Ser Gly Gly Tyr
 115 120 125

A-579B.ST25.txt

Leu His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Leu Trp Leu
130 135 140

Pro Val Gly Cys Ala Ala Phe Val Val Val Leu Leu Phe Gly Cys Ile
145 150 155 160

Leu Ile Ile Trp Phe Ser Lys Lys Lys Tyr Gly Ser Ser Val His Asp
165 170 175

Pro Asn Ser Glu Tyr Met Phe Met Ala Ala Val Asn Thr Asn Lys Lys
180 185 190

Ser Arg Leu Ala Gly Val Thr Ser
195 200

<210> 4
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Met Thr Leu Arg Leu Leu Phe Leu Ala Leu Asn Phe Phe Ser Val Gln
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Val Thr Glu Asn Lys Ile Leu Val Lys Gln Ser Pro Leu Leu Val Val
20 25 30

Asp Ser Asn Glu Val Ser Leu Ser Cys Arg Tyr Ser Tyr Asn Leu Leu
35 40 45

Ala Lys Glu Phe Arg Ala Ser Leu Tyr Lys Gly Val Asn Ser Asp Val
50 55 60

Glu Val Cys Val Gly Asn Gly Asn Phe Thr Tyr Gln Pro Gln Phe Arg
65 70 75 80

Ser Asn Ala Glu Phe Asn Cys Asp Gly Asp Phe Asp Asn Glu Thr Val
85 90 95

Thr Phe Arg Leu Trp Asn Leu His Val Asn His Thr Asp Ile Tyr Phe
100 105 110

Cys Lys Ile Glu Phe Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Arg
115 120 125

Ser Asn Gly Thr Ile Ile His Ile Lys Glu Lys His Leu Cys His Thr
130 135 140

Gln Ser Ser Pro Lys Leu Phe Trp Ala Leu Val Val Val Ala Gly Val
145 150 155 160

Leu Phe Cys Tyr Gly Leu Leu Val Thr Val Ala Leu Cys Val Ile Trp
165 170 175

A-579B.ST25.txt

Thr Asn Ser Arg Arg Asn Arg Leu Leu Gln Val Thr Thr Met Asn Met
180 185 190

Thr Pro Arg Arg Pro Gly Leu Thr Arg Lys Pro Tyr Gln Pro Tyr Ala
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Pro Ala Arg Asp Phe Ala Ala Tyr Arg Pro
210 215

<210> 5
<211> 44
<212> PRT
<213> Artificial sequence

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<221> misc_feature
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<400> 5

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Asn Tyr Phe Cys Pro Pro Pro Ser Gly His Ile Glu Leu Cys Lys Leu
20 25 30

Trp Leu Val Phe Leu Leu Leu Ile Trp Pro Arg Ala
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<210> 6
<211> 966
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (1)..(966)

<400> 6

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48

Met Gln Leu Lys Cys Pro Cys Phe Val Ser Leu Gly Thr Arg Gln Pro
1 5 10 15

gtt tgg aag aag ctc cat gtt tct agc ggg ttc ttt tct ggt ctt ggt
96

Val Trp Lys Lys Leu His Val Ser Ser Gly Phe Phe Ser Gly Leu Gly
20 25 30

ctg ttc ttg ctg ctg ttg agc agc ctc tgt gct gcc tct gca gag act

A-579B.ST25.txt

144

Leu Phe Leu Leu Leu Leu Ser Ser Leu Cys Ala Ala Ser Ala Glu Thr

35

40

45

gaa gtc ggt gca atg gtg ggc agc aat gtg gtg ctc agc tgc att gac
192

Glu Val Gly Ala Met Val Gly Ser Asn Val Val Leu Ser Cys Ile Asp

50

55

60

ccc cac aga cgc cat ttc aac ttg agt ggt ctg tat gtc tat tgg caa
240

Pro His Arg Arg His Phe Asn Leu Ser Gly Leu Tyr Val Tyr Trp Gln

65

70

75

80

atc gaa aac cca gaa gtt tcg gtg act tac tac ctg cct tac aag tct
288

Ile Glu Asn Pro Glu Val Ser Val Thr Tyr Tyr Leu Pro Tyr Lys Ser

85

90

95

cca ggg atc aat gtg gac agt tcc tac aag aac agg ggc cat ctg tcc
336

Pro Gly Ile Asn Val Asp Ser Ser Tyr Lys Asn Arg Gly His Leu Ser

100

105

110

ctg gac tcc atg aag cag ggt aac ttc tct ctg tac ctg aag aat gtc
384

Leu Asp Ser Met Lys Gln Gly Asn Phe Ser Leu Tyr Leu Lys Asn Val

115

120

125

acc cct cag gat acc cag gag ttc aca tgc cgg gta ttt atg aat aca
432

Thr Pro Gln Asp Thr Gln Glu Phe Thr Cys Arg Val Phe Met Asn Thr

130

135

140

gcc aca gag tta gtc aag atc ttg gaa gag gtg gtc agg ctg cgt gtg
480

Ala Thr Glu Leu Val Lys Ile Leu Glu Glu Val Val Arg Leu Arg Val

145

150

155

160

A-579B.ST25.txt

gca gca aac ttc agt aca cct gtc atc agc acc tct gat agc tcc aac
528

Ala Ala Asn Phe Ser Thr Pro Val Ile Ser Thr Ser Asp Ser Ser Asn

165

170

175

ccg ggc cag gaa cgt acc tac acc tgc atg tcc aag aat ggc tac cca
576

Pro Gly Gln Glu Arg Thr Tyr Thr Cys Met Ser Lys Asn Gly Tyr Pro

180

185

190

gag ccc aac ctg tat tgg atc aac aca acg gac aat agc cta ata gac
624

Glu Pro Asn Leu Tyr Trp Ile Asn Thr Thr Asp Asn Ser Leu Ile Asp

195

200

205

acg gct ctg cag aat aac act gtc tac ttg aac aag ttg ggc ctg tat
672

Thr Ala Leu Gln Asn Asn Thr Val Tyr Leu Asn Lys Leu Gly Leu Tyr

210

215

220

gat gta atc agc aca tta agg ctc cct tgg aca tct cgt ggg gat gtt
720

Asp Val Ile Ser Thr Leu Arg Leu Pro Trp Thr Ser Arg Gly Asp Val

225

230

235

240

ctg tgc tgc gta gag aat gtg gct ctc cac cag aac atc act agc att
768

Leu Cys Cys Val Glu Asn Val Ala Leu His Gln Asn Ile Thr Ser Ile

245

250

255

agc cag gca gaa agt ttc act gga aat aac aca aag aac cca cag gaa
816

Ser Gln Ala Glu Ser Phe Thr Gly Asn Asn Thr Lys Asn Pro Gln Glu

260

265

270

acc cac aat aat gag tta aaa gtc ctt gtc ccc gtc ctt gct gta ctg
864

Thr His Asn Asn Glu Leu Lys Val Leu Val Pro Val Leu Ala Val Leu

275

280

285

A-579B.ST25.txt

gcg gca gcg gca ttc gtt tcc ttc atc ata tac aga cgc acg cgt ccc
 912
 Ala Ala Ala Ala Phe Val Ser Phe Ile Ile Tyr Arg Arg Thr Arg Pro
 290 295 300

cac cga agc tat aca gga ccc aag act gta cag ctt gaa ctt aca gac
 960
 His Arg Ser Tyr Thr Gly Pro Lys Thr Val Gln Leu Glu Leu Thr Asp
 305 310 315 320

cac gcc
 966
 His Ala

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 <213> Mus musculus

<400> 7

Met Gln Leu Lys Cys Pro Cys Phe Val Ser Leu Gly Thr Arg Gln Pro
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Val Trp Lys Lys Leu His Val Ser Ser Gly Phe Phe Ser Gly Leu Gly
 20 25 30

Leu Phe Leu Leu Leu Leu Ser Ser Leu Cys Ala Ala Ser Ala Glu Thr
 35 40 45

Glu Val Gly Ala Met Val Gly Ser Asn Val Val Leu Ser Cys Ile Asp
 50 55 60

Pro His Arg Arg His Phe Asn Leu Ser Gly Leu Tyr Val Tyr Trp Gln
 65 70 75 80

Ile Glu Asn Pro Glu Val Ser Val Thr Tyr Tyr Leu Pro Tyr Lys Ser
 85 90 95

Pro Gly Ile Asn Val Asp Ser Ser Tyr Lys Asn Arg Gly His Leu Ser

100

105

110

Leu Asp Ser Met Lys Gln Gly Asn Phe Ser Leu Tyr Leu Lys Asn Val
 115 120 125

Thr Pro Gln Asp Thr Gln Glu Phe Thr Cys Arg Val Phe Met Asn Thr
 130 135 140

Ala Thr Glu Leu Val Lys Ile Leu Glu Glu Val Val Arg Leu Arg Val
 145 150 155 160

Ala Ala Asn Phe Ser Thr Pro Val Ile Ser Thr Ser Asp Ser Ser Asn
 165 170 175

Pro Gly Gln Glu Arg Thr Tyr Thr Cys Met Ser Lys Asn Gly Tyr Pro
 180 185 190

Glu Pro Asn Leu Tyr Trp Ile Asn Thr Thr Asp Asn Ser Leu Ile Asp
 195 200 205

Thr Ala Leu Gln Asn Asn Thr Val Tyr Leu Asn Lys Leu Gly Leu Tyr
 210 215 220

Asp Val Ile Ser Thr Leu Arg Leu Pro Trp Thr Ser Arg Gly Asp Val
 225 230 235 240

Leu Cys Cys Val Glu Asn Val Ala Leu His Gln Asn Ile Thr Ser Ile
 245 250 255

Ser Gln Ala Glu Ser Phe Thr Gly Asn Asn Thr Lys Asn Pro Gln Glu
 260 265 270

Thr His Asn Asn Glu Leu Lys Val Leu Val Pro Val Leu Ala Val Leu
 275 280 285

Ala Ala Ala Ala Phe Val Ser Phe Ile Ile Tyr Arg Arg Thr Arg Pro
 290 295 300

His Arg Ser Tyr Thr Gly Pro Lys Thr Val Gln Leu Glu Leu Thr Asp
 305 310 315 320

His Ala

<210> 8
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 <212> PRT
 <213> Mus musculus

<400> 8

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 20 25 30
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 35 40 45
 Glu Val Gly Ala Met Val Gly Ser Asn Val Val Leu Ser Cys Ile Asp
 50 55 60
 Pro His Arg Arg His Phe Asn Leu Ser Gly Leu Tyr Val Tyr Trp Gln
 65 70 75 80
 Ile Glu Asn Pro Glu Val Ser Val Thr Tyr Tyr Leu Pro Tyr Lys Ser
 85 90 95
 Pro Gly Ile Asn Val Asp Ser Ser Tyr Lys Asn Arg Gly His Leu Ser
 100 105 110
 Leu Asp Ser Met Lys Gln Gly Asn Phe Ser Leu Tyr Leu Lys Asn Val
 115 120 125
 Thr Pro Gln Asp Thr Gln Glu Phe Thr Cys Arg Val Phe Met Asn Thr
 130 135 140
 Ala Thr Glu Leu Val Lys Ile Leu Glu Glu Val Val Arg Leu Arg Val
 145 150 155 160
 Ala Ala Asn Phe Ser Thr Pro Val Ile Ser Thr Ser Asp Ser Ser Asn
 165 170 175
 Pro Gly Gln Glu Arg Thr Tyr Thr Cys Met Ser Lys Asn Gly Tyr Pro
 180 185 190
 Glu Pro Asn Leu Tyr Trp Ile Asn Thr Thr Asp Asn Ser Leu Ile Asp
 195 200 205
 Thr Ala Leu Gln Asn Asn Thr Val Tyr Leu Asn Lys Leu Gly Leu Tyr
 210 215 220
 Asp Val Ile Ser Thr Leu Arg Leu Pro Trp Thr Ser Arg Gly Asp Val
 225 230 235 240

A-579B.ST25.txt

Leu Cys Cys Val Glu Asn Val Ala Leu His Gln Asn Ile Thr Ser Ile
245 250 255

Ser Gln Ala Glu Ser Phe Thr Gly Asn Asn Thr Lys Asn Pro Gln Glu
260 265 270

Thr His Asn Asn Glu Leu Lys Val Leu Val Pro Val Leu Ala Val Leu
275 280 285

Ala Ala Ala Ala Phe Val Ser Phe Ile Ile Tyr Arg Arg Thr Arg Pro
290 295 300

His Arg Ser Tyr Thr Gly Pro Lys Thr Val Gln Leu Glu Leu Thr Asp
305 310 315 320

His Ala

<210> 9

<211> 306

<212> PRT

<213> Mus musculus

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Met Ala Cys Asn Cys Gln Leu Met Gln Asp Thr Pro Leu Leu Lys Phe
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Pro Cys Pro Arg Leu Ile Leu Leu Phe Val Leu Leu Ile Arg Leu Ser
20 25 30

Gln Val Ser Ser Asp Val Asp Glu Gln Leu Ser Lys Ser Val Lys Asp
35 40 45

Lys Val Leu Leu Pro Cys Arg Tyr Asn Ser Pro His Glu Asp Glu Ser
50 55 60

Glu Asp Arg Ile Tyr Trp Gln Lys His Asp Lys Val Val Leu Ser Val
65 70 75 80

Ile Ala Gly Lys Leu Lys Val Trp Pro Glu Tyr Lys Asn Arg Thr Leu
85 90 95

Tyr Asp Asn Thr Thr Tyr Ser Leu Ile Ile Leu Gly Leu Val Leu Ser
100 105 110

Asp Arg Gly Thr Tyr Ser Cys Val Val Gln Lys Lys Glu Arg Gly Thr
115 120 125

Tyr Glu Val Lys His Leu Ala Leu Val Lys Leu Ser Ile Lys Ala Asp
130 135 140

Phe Ser Thr Pro Asn Ile Thr Glu Ser Gly Asn Pro Ser Ala Asp Thr
145 150 155 160

A-579B.ST25.txt

Lys Arg Ile Thr Cys Phe Ala Ser Gly Gly Phe Pro Lys Pro Arg Phe
165 170 175

Ser Trp Leu Glu Asn Gly Arg Glu Leu Pro Gly Ile Asn Thr Thr Ile
180 185 190

Ser Gln Asp Pro Glu Ser Glu Leu Tyr Thr Ile Ser Ser Gln Leu Asp
195 200 205

Phe Asn Thr Thr Arg Asn His Thr Ile Lys Cys Leu Ile Lys Tyr Gly
210 215 220

Asp Ala His Val Ser Glu Asp Phe Thr Trp Glu Lys Pro Pro Glu Asp
225 230 235 240

Pro Pro Asp Ser Lys Asn Thr Leu Val Leu Phe Gly Ala Gly Phe Gly
245 250 255

Ala Val Ile Thr Val Val Val Ile Val Val Ile Ile Lys Cys Phe Cys
260 265 270

Lys His Arg Ser Cys Phe Arg Arg Asn Glu Ala Ser Arg Glu Thr Asn
275 280 285

Asn Ser Leu Thr Phe Gly Pro Glu Glu Ala Leu Ala Glu Gln Thr Val
290 295 300

Phe Leu
305

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<211> 67
<212> PRT
<213> Artificial sequence

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<221> misc_feature
<223> Synthetic

<400> 10

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1 5 10 15

His Ser Tyr Trp Gln Val Leu Val Tyr Lys Asn Arg Leu Ser Leu Asp
20 25 30

Cys Val Val Leu Ala Phe Ser Thr Pro Ile Ser Arg Thr Cys Gly Pro
35 40 45

Pro Trp Asn Ile Thr Thr Val Asn Val Val Val Phe Arg Ser Thr Gly
50 55 60

Pro Glu Thr
65

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<213> Mus musculus

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<221> CDS
<222> (1)..(864)

<400> 11
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Met Arg Leu Gly Ser Pro Gly Leu Leu Phe Leu Leu Phe Ser Ser Leu
1 5 10 15

cga gct gat act cag gag aag gaa gtc aga gcg atg gta ggc agc gac
96
Arg Ala Asp Thr Gln Glu Lys Glu Val Arg Ala Met Val Gly Ser Asp
20 25 30

gtg gag ctc agc tgc gct tgc cct gaa gga agc cgt ttt gat tta aat
144
Val Glu Leu Ser Cys Ala Cys Pro Glu Gly Ser Arg Phe Asp Leu Asn
35 40 45

gat gtt tac gta tat tgg caa acc agt gag tcg aaa acc gtg gtg acc
192
Asp Val Tyr Val Tyr Trp Gln Thr Ser Glu Ser Lys Thr Val Val Thr
50 55 60

tac cac atc cca cag aac agc tcc ttg gaa aac gtg gac agc cgc tac
240
Tyr His Ile Pro Gln Asn Ser Ser Leu Glu Asn Val Asp Ser Arg Tyr
65 70 75 80

cgg aac cga gcc ctg atg tca ccg gcc ggc atg ctg cgg ggc gac ttc
288
Arg Asn Arg Ala Leu Met Ser Pro Ala Gly Met Leu Arg Gly Asp Phe
85 90 95

A-579B.ST25.txt

tcc ctg cgc ttg ttc aac gtc acc ccc cag gac gag cag aag ttt cac
336

Ser Leu Arg Leu Phe Asn Val Thr Pro Gln Asp Glu Gln Lys Phe His

100

105

110

tgc ctg gtg ttg agc caa tcc ctg gga ttc cag gag gtt ttg agc gtt
384

Cys Leu Val Leu Ser Gln Ser Leu Gly Phe Gln Glu Val Leu Ser Val

115

120

125

gag gtt aca ctg cat gtg gca gca aac ttc agc gtg ccc gtc gtc agc
432

Glu Val Thr Leu His Val Ala Ala Asn Phe Ser Val Pro Val Val Ser

130

135

140

gcc ccc cac agc ccc tcc cag gat gag ctc acc ttc acg tgt aca tcc
480

Ala Pro His Ser Pro Ser Gln Asp Glu Leu Thr Phe Thr Cys Thr Ser

145

150

155

160

ata aac ggc tac ccc agg ccc aac gtg tac tgg atc aat aag acg gac
528

Ile Asn Gly Tyr Pro Arg Pro Asn Val Tyr Trp Ile Asn Lys Thr Asp

165

170

175

aac agc ctg ctg gac cag gct ctg cag aat gac acc gtc ttc ttg aac
576

Asn Ser Leu Leu Asp Gln Ala Leu Gln Asn Asp Thr Val Phe Leu Asn

180

185

190

atg cgg ggc ttg tat gac gtg gtc agc gtg ctg agg atc gca cgg acc
624

Met Arg Gly Leu Tyr Asp Val Val Ser Val Leu Arg Ile Ala Arg Thr

195

200

205

ccc agc gtg aac att ggc tgc tgc ata gag aac gtg ctt ctg cag cag
672

Pro Ser Val Asn Ile Gly Cys Cys Ile Glu Asn Val Leu Leu Gln Gln

210

215

220

A-579B.ST25.txt

aac ctg act gtc ggc agc cag aca gga aat gac atc gga gag aga gac
 720
 Asn Leu Thr Val Gly Ser Gln Thr Gly Asn Asp Ile Gly Glu Arg Asp
 225 230 235 240

aag atc aca gag aat cca gtc agt acc ggc gag aaa aac gcg gcc acg
 768
 Lys Ile Thr Glu Asn Pro Val Ser Thr Gly Glu Lys Asn Ala Ala Thr
 245 250 255

tgg agc atc ctg gct gtc ctg tgc ctg ctt gtg gtc gtg gcg gtg gcc
 816
 Trp Ser Ile Leu Ala Val Leu Cys Leu Leu Val Val Val Ala Val Ala
 260 265 270

ata ggc tgg gtg tgc agg gac cga tgc ctc caa cac agc tat gca ggt
 864
 Ile Gly Trp Val Cys Arg Asp Arg Cys Leu Gln His Ser Tyr Ala Gly
 275 280 285

<210> 12
 <211> 288
 <212> PRT
 <213> Mus musculus

<400> 12

Met Arg Leu Gly Ser Pro Gly Leu Leu Phe Leu Leu Phe Ser Ser Leu
 1 5 10 15

Arg Ala Asp Thr Gln Glu Lys Glu Val Arg Ala Met Val Gly Ser Asp
 20 25 30

Val Glu Leu Ser Cys Ala Cys Pro Glu Gly Ser Arg Phe Asp Leu Asn
 35 40 45

Asp Val Tyr Val Tyr Trp Gln Thr Ser Glu Ser Lys Thr Val Val Thr
 50 55 60

Tyr His Ile Pro Gln Asn Ser Ser Leu Glu Asn Val Asp Ser Arg Tyr
 65 70 75 80

Arg	Asn	Arg	Ala	Leu	Met	Ser	Pro	Ala	Gly	Met	Leu	Arg	Gly	Asp	Phe	
				85					90					95		
Ser	Leu	Arg	Leu	Phe	Asn	Val	Thr	Pro	Gln	Asp	Glu	Gln	Lys	Phe	His	
			100					105					110			
Cys	Leu	Val	Leu	Ser	Gln	Ser	Leu	Gly	Phe	Gln	Glu	Val	Leu	Ser	Val	
		115					120					125				
Glu	Val	Thr	Leu	His	Val	Ala	Ala	Asn	Phe	Ser	Val	Pro	Val	Val	Ser	
	130					135					140					
Ala	Pro	His	Ser	Pro	Ser	Gln	Asp	Glu	Leu	Thr	Phe	Thr	Cys	Thr	Ser	
145					150					155					160	
Ile	Asn	Gly	Tyr	Pro	Arg	Pro	Asn	Val	Tyr	Trp	Ile	Asn	Lys	Thr	Asp	
				165					170					175		
Asn	Ser	Leu	Leu	Asp	Gln	Ala	Leu	Gln	Asn	Asp	Thr	Val	Phe	Leu	Asn	
			180					185					190			
Met	Arg	Gly	Leu	Tyr	Asp	Val	Val	Ser	Val	Leu	Arg	Ile	Ala	Arg	Thr	
		195					200					205				
Pro	Ser	Val	Asn	Ile	Gly	Cys	Cys	Ile	Glu	Asn	Val	Leu	Leu	Gln	Gln	
	210					215					220					
Asn	Leu	Thr	Val	Gly	Ser	Gln	Thr	Gly	Asn	Asp	Ile	Gly	Glu	Arg	Asp	
225					230					235					240	
Lys	Ile	Thr	Glu	Asn	Pro	Val	Ser	Thr	Gly	Glu	Lys	Asn	Ala	Ala	Thr	
				245					250					255		
Trp	Ser	Ile	Leu	Ala	Val	Leu	Cys	Leu	Leu	Val	Val	Val	Ala	Val	Ala	
			260					265					270			
Ile	Gly	Trp	Val	Cys	Arg	Asp	Arg	Cys	Leu	Gln	His	Ser	Tyr	Ala	Gly	
		275					280					285				

<210> 13

<211> 267
 <212> PRT
 <213> Homo sapiens

<400> 13

Glu	Lys	Glu	Val	Arg	Ala	Met	Val	Gly	Ser	Asp	Val	Glu	Leu	Ser	Cys
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Ala	Cys	Pro	Glu	Gly	Ser	Arg	Phe	Asp	Leu	Asn	Asp	Val	Tyr	Val	Tyr
			20					25					30		
Trp	Gln	Thr	Ser	Glu	Ser	Lys	Thr	Val	Val	Thr	Tyr	His	Ile	Pro	Gln
		35					40					45			
Asn	Ser	Ser	Leu	Glu	Asn	Val	Asp	Ser	Arg	Tyr	Arg	Asn	Arg	Ala	Leu
	50					55					60				
Met	Ser	Pro	Ala	Gly	Met	Leu	Arg	Gly	Asp	Phe	Ser	Leu	Arg	Leu	Phe
65					70					75					80
Asn	Val	Thr	Pro	Gln	Asp	Glu	Gln	Lys	Phe	His	Cys	Leu	Val	Leu	Ser
				85					90					95	
Gln	Ser	Leu	Gly	Phe	Gln	Glu	Val	Leu	Ser	Val	Glu	Val	Thr	Leu	His
			100					105					110		
Val	Ala	Ala	Asn	Phe	Ser	Val	Pro	Val	Val	Ser	Ala	Pro	His	Ser	Pro
		115					120					125			
Ser	Gln	Asp	Glu	Leu	Thr	Phe	Thr	Cys	Thr	Ser	Ile	Asn	Gly	Tyr	Pro
	130					135					140				
Arg	Pro	Asn	Val	Tyr	Trp	Ile	Asn	Lys	Thr	Asp	Asn	Ser	Leu	Leu	Asp
145					150					155					160
Gln	Ala	Leu	Gln	Asn	Asp	Thr	Val	Phe	Leu	Asn	Met	Arg	Gly	Leu	Tyr
				165					170					175	
Asp	Val	Val	Ser	Val	Leu	Arg	Ile	Ala	Arg	Thr	Pro	Ser	Val	Asn	Ile
			180					185					190		
Gly	Cys	Cys	Ile	Glu	Asn	Val	Leu	Leu	Gln	Gln	Asn	Leu	Thr	Val	Gly
		195					200					205			
Ser	Gln	Thr	Gly	Asn	Asp	Ile	Gly	Glu	Arg	Asp	Lys	Ile	Thr	Glu	Asn
	210					215					220				
Pro	Val	Ser	Thr	Gly	Glu	Lys	Asn	Ala	Ala	Thr	Trp	Ser	Ile	Leu	Ala
225					230					235					240
Val	Leu	Cys	Leu	Leu	Val	Val	Val	Ala	Val	Ala	Ile	Gly	Trp	Val	Cys
				245					250					255	
Arg	Asp	Arg	Cys	Leu	Gln	His	Ser	Tyr	Ala	Gly					

260

265

<210> 14
 <211> 276
 <212> PRT
 <213> Mus musculus

<400> 14

Glu	Thr	Glu	Val	Gly	Ala	Met	Val	Gly	Ser	Asn	Val	Val	Leu	Ser	Cys	1	5	10	15
Ile	Asp	Pro	His	Arg	Arg	His	Phe	Asn	Leu	Ser	Gly	Leu	Tyr	Val	Tyr	20	25	30	
Trp	Gln	Ile	Glu	Asn	Pro	Glu	Val	Ser	Val	Thr	Tyr	Tyr	Leu	Pro	Tyr	35	40	45	
Lys	Ser	Pro	Gly	Ile	Asn	Val	Asp	Ser	Ser	Tyr	Lys	Asn	Arg	Gly	His	50	55	60	
Leu	Ser	Leu	Asp	Ser	Met	Lys	Gln	Gly	Asn	Phe	Ser	Leu	Tyr	Leu	Lys	65	70	75	80
Asn	Val	Thr	Pro	Gln	Asp	Thr	Gln	Glu	Phe	Thr	Cys	Arg	Val	Phe	Met	85	90	95	
Asn	Thr	Ala	Thr	Glu	Leu	Val	Lys	Ile	Leu	Glu	Glu	Val	Val	Arg	Leu	100	105	110	
Arg	Val	Ala	Ala	Asn	Phe	Ser	Thr	Pro	Val	Ile	Ser	Thr	Ser	Asp	Ser	115	120	125	
Ser	Asn	Pro	Gly	Gln	Glu	Arg	Thr	Tyr	Thr	Cys	Met	Ser	Lys	Asn	Gly	130	135	140	
Tyr	Pro	Glu	Pro	Asn	Leu	Tyr	Trp	Ile	Asn	Thr	Thr	Asp	Asn	Ser	Leu	145	150	155	160
Ile	Asp	Thr	Ala	Leu	Gln	Asn	Asn	Thr	Val	Tyr	Leu	Asn	Lys	Leu	Gly	165	170	175	
Leu	Tyr	Asp	Val	Ile	Ser	Thr	Leu	Arg	Leu	Pro	Trp	Thr	Ser	Arg	Gly	180	185	190	
Asp	Val	Leu	Cys	Cys	Val	Glu	Asn	Val	Ala	Leu	His	Gln	Asn	Ile	Thr	195	200	205	
Ser	Ile	Ser	Gln	Ala	Glu	Ser	Phe	Thr	Gly	Asn	Asn	Thr	Lys	Asn	Pro	210	215	220	
Gln	Glu	Thr	His	Asn	Asn	Glu	Leu	Lys	Val	Leu	Val	Pro	Val	Leu	Ala	225	230	235	240
Val	Leu	Ala	Ala	Ala	Ala	Phe	Val	Ser	Phe	Ile	Ile	Tyr	Arg	Arg	Thr				

245

250

255

Arg Pro His Arg Ser Tyr Thr Gly Pro Lys Thr Val Gln Leu Glu Leu
 . 260 265 270

Thr Asp His Ala
 275

<210> 15
 <211> 125
 <212> PRT
 <213> Artificial sequence

<220>
 <221> misc_feature
 <223> Synthetic

<400> 15

Glu Glu Val Ala Met Val Gly Ser Val Leu Ser Cys Pro Phe Leu Tyr
 1 5 10 15
 Val Tyr Trp Gln Val Thr Tyr Pro Ser Asn Val Asp Ser Tyr Asn Arg
 20 25 30
 Ser Met Gly Phe Ser Leu Leu Asn Val Thr Pro Gln Asp Gln Phe Cys
 35 40 45
 Val Leu Val Leu Val Ala Ala Asn Phe Ser Pro Val Ser Ser Glu Thr
 50 55 60
 Thr Cys Ser Asn Gly Tyr Pro Pro Asn Tyr Trp Ile Asn Thr Asp Asn
 65 70 75 80
 Ser Leu Asp Ala Leu Gln Asn Thr Val Leu Asn Gly Leu Tyr Asp Val
 85 90 95
 Ser Leu Arg Thr Cys Cys Glu Asn Val Leu Gln Asn Thr Ser Gln Gly
 100 105 110
 Lys Lys Leu Ala Val Leu Val Ile Arg Arg Ser Tyr Gly
 115 120 125

<210> 16
 <211> 1294
 <212> DNA
 <213> Homo sapiens

<220>
 <221> 5'UTR
 <222> (1)..(199)

<220>
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<222> (200)..(1105)

<400> 16

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60cgtccgcggg agcgcagtta gagccgatct cccgcgcccc gaggttgctc ctctccgagg
120tctcccgcgg cccaagttct ccgcgccccg aggtctccgc gccccgaggt ctccgcggcc
180cgaggtctcc gcccgccacc atg cgg ctg ggc agt cct gga ctg ctc ttc ctg
232

Met Arg Leu Gly Ser Pro Gly Leu Leu Phe Leu

1

5

10

ctc ttc agc agc ctt cga gct gat act cag gag aag gaa gtc aga gcg
280

Leu Phe Ser Ser Leu Arg Ala Asp Thr Gln Glu Lys Glu Val Arg Ala

15

20

25

atg gta ggc agc gac gtg gag ctc agc tgc gct tgc cct gaa gga agc
328

Met Val Gly Ser Asp Val Glu Leu Ser Cys Ala Cys Pro Glu Gly Ser

30

35

40

cgt ttt gat tta aat gat gtt tac gta tat tgg caa acc agt gag tcg
376

Arg Phe Asp Leu Asn Asp Val Tyr Val Tyr Trp Gln Thr Ser Glu Ser

45

50

55

aaa acc gtg gtg acc tac cac atc cca cag aac agc tcc ttg gaa aac
424

Lys Thr Val Val Thr Tyr His Ile Pro Gln Asn Ser Ser Leu Glu Asn

60

65

70

75

gtg gac agc cgc tac cgg aac cga gcc ctg atg tca ccg gcc ggc atg
472

Val Asp Ser Arg Tyr Arg Asn Arg Ala Leu Met Ser Pro Ala Gly Met

80

85

90

ctg cgg ggc gac ttc tcc ctg cgc ttg ttc aac gtc acc ccc cag gac

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520

Leu Arg Gly Asp Phe Ser Leu Arg Leu Phe Asn Val Thr Pro Gln Asp

95

100

105

gag cag aag ttt cac tgc ctg gtg ttg agc caa tcc ctg gga ttc cag
568

Glu Gln Lys Phe His Cys Leu Val Leu Ser Gln Ser Leu Gly Phe Gln

110

115

120

gag gtt ttg agc gtt gag gtt aca ctg cat gtg gca gca aac ttc agc
616

Glu Val Leu Ser Val Glu Val Thr Leu His Val Ala Ala Asn Phe Ser

125

130

135

gtg ccc gtc gtc agc gcc ccc cac agc ccc tcc cag gat gag ctc acc
664

Val Pro Val Val Ser Ala Pro His Ser Pro Ser Gln Asp Glu Leu Thr

140

145

150

155

ttc acg tgt aca tcc ata aac ggc tac ccc agg ccc aac gtg tac tgg
712

Phe Thr Cys Thr Ser Ile Asn Gly Tyr Pro Arg Pro Asn Val Tyr Trp

160

165

170

atc aat aag acg gac aac agc ctg ctg gac cag gct ctg cag aat gac
760

Ile Asn Lys Thr Asp Asn Ser Leu Leu Asp Gln Ala Leu Gln Asn Asp

175

180

185

acc gtc ttc ttg aac atg cgg ggc ttg tat gac gtg gtc agc gtg ctg
808

Thr Val Phe Leu Asn Met Arg Gly Leu Tyr Asp Val Val Ser Val Leu

190

195

200

agg atc gca cgg acc ccc agc gtg aac att ggc tgc tgc ata gag aac
856

Arg Ile Ala Arg Thr Pro Ser Val Asn Ile Gly Cys Cys Ile Glu Asn

205

210

215

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gtg ctt ctg cag cag aac ctg act gtc ggc agc cag aca gga aat gac
 904
 Val Leu Leu Gln Gln Asn Leu Thr Val Gly Ser Gln Thr Gly Asn Asp
 220 225 230 235

atc gga gag aga gac aag atc aca gag aat cca gtc agt acc ggc gag
 952
 Ile Gly Glu Arg Asp Lys Ile Thr Glu Asn Pro Val Ser Thr Gly Glu
 240 245 250

aaa aac gcg gcc acg tgg agc atc ctg gct gtc ctg tgc ctg ctt gtg
 1000
 Lys Asn Ala Ala Thr Trp Ser Ile Leu Ala Val Leu Cys Leu Leu Val
 255 260 265

gtc gtg gcg gtg gcc ata ggc tgg gtg tgc agg gac cga tgc ctc caa
 1048
 Val Val Ala Val Ala Ile Gly Trp Val Cys Arg Asp Arg Cys Leu Gln
 270 275 280

cac agc tat gca ggt gcc tgg gct gtg agt ccg gag aca gag ctc act
 1096
 His Ser Tyr Ala Gly Ala Trp Ala Val Ser Pro Glu Thr Glu Leu Thr
 285 290 295

ggc cac gtt tgaccggagc tcaccgcccc gagcgtggac agggcttccg
 1145
 Gly His Val
 300

tgagacgcca ccgtgagagg ccaggtggca gcttgagcat ggactcccag actgcagggg
 1205

agcacttggg gcagccccca gaaggaccac tgctggatcc cagggagaac ctgctggcgt
 1265

tggtgtgat cctggaatga ggccctttc
 1294

<210> 17
 <211> 302
 <212> PRT

<213> Homo sapiens

<400> 17

Met	Arg	Leu	Gly	Ser	Pro	Gly	Leu	Leu	Phe	Leu	Leu	Phe	Ser	Ser	Leu
1				5					10					15	

Arg	Ala	Asp	Thr	Gln	Glu	Lys	Glu	Val	Arg	Ala	Met	Val	Gly	Ser	Asp
			20					25					30		

Val	Glu	Leu	Ser	Cys	Ala	Cys	Pro	Glu	Gly	Ser	Arg	Phe	Asp	Leu	Asn
		35					40					45			

Asp	Val	Tyr	Val	Tyr	Trp	Gln	Thr	Ser	Glu	Ser	Lys	Thr	Val	Val	Thr
	50					55					60				

Tyr	His	Ile	Pro	Gln	Asn	Ser	Ser	Leu	Glu	Asn	Val	Asp	Ser	Arg	Tyr
65					70					75					80

Arg	Asn	Arg	Ala	Leu	Met	Ser	Pro	Ala	Gly	Met	Leu	Arg	Gly	Asp	Phe
				85					90					95	

Ser	Leu	Arg	Leu	Phe	Asn	Val	Thr	Pro	Gln	Asp	Glu	Gln	Lys	Phe	His
			100					105					110		

Cys	Leu	Val	Leu	Ser	Gln	Ser	Leu	Gly	Phe	Gln	Glu	Val	Leu	Ser	Val
		115					120					125			

Glu	Val	Thr	Leu	His	Val	Ala	Ala	Asn	Phe	Ser	Val	Pro	Val	Val	Ser
	130					135					140				

Ala	Pro	His	Ser	Pro	Ser	Gln	Asp	Glu	Leu	Thr	Phe	Thr	Cys	Thr	Ser
145					150					155					160

Ile	Asn	Gly	Tyr	Pro	Arg	Pro	Asn	Val	Tyr	Trp	Ile	Asn	Lys	Thr	Asp
				165					170					175	

Asn	Ser	Leu	Leu	Asp	Gln	Ala	Leu	Gln	Asn	Asp	Thr	Val	Phe	Leu	Asn
			180					185					190		

Met	Arg	Gly	Leu	Tyr	Asp	Val	Val	Ser	Val	Leu	Arg	Ile	Ala	Arg	Thr
		195					200					205			

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Pro Ser Val Asn Ile Gly Cys Cys Ile Glu Asn Val Leu Leu Gln Gln
210 215 220

Asn Leu Thr Val Gly Ser Gln Thr Gly Asn Asp Ile Gly Glu Arg Asp
225 230 235 240

Lys Ile Thr Glu Asn Pro Val Ser Thr Gly Glu Lys Asn Ala Ala Thr
245 250 255

Trp Ser Ile Leu Ala Val Leu Cys Leu Leu Val Val Val Ala Val Ala
260 265 270

Ile Gly Trp Val Cys Arg Asp Arg Cys Leu Gln His Ser Tyr Ala Gly
275 280 285

Ala Trp Ala Val Ser Pro Glu Thr Glu Leu Thr Gly His Val
290 295 300

<210> 18
<211> 302
<212> PRT
<213> Homo sapiens

<400> 18

Met Arg Leu Gly Ser Pro Gly Leu Leu Phe Leu Leu Phe Ser Ser Leu
1 5 10 15

Arg Ala Asp Thr Gln Glu Lys Glu Val Arg Ala Met Val Gly Ser Asp
20 25 30

Val Glu Leu Ser Cys Ala Cys Pro Glu Gly Ser Arg Phe Asp Leu Asn
35 40 45

Asp Val Tyr Val Tyr Trp Gln Thr Ser Glu Ser Lys Thr Val Val Thr
50 55 60

Tyr His Ile Pro Gln Asn Ser Ser Leu Glu Asn Val Asp Ser Arg Tyr
65 70 75 80

Arg Asn Arg Ala Leu Met Ser Pro Ala Gly Met Leu Arg Gly Asp Phe
85 90 95

Ser Leu Arg Leu Phe Asn Val Thr Pro Gln Asp Glu Gln Lys Phe His
100 105 110

Cys Leu Val Leu Ser Gln Ser Leu Gly Phe Gln Glu Val Leu Ser Val
115 120 125

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Glu Val Thr Leu His Val Ala Ala Asn Phe Ser Val Pro Val Val Ser
130 135 140

Ala Pro His Ser Pro Ser Gln Asp Glu Leu Thr Phe Thr Cys Thr Ser
145 150 155 160

Ile Asn Gly Tyr Pro Arg Pro Asn Val Tyr Trp Ile Asn Lys Thr Asp
165 170 175

Asn Ser Leu Leu Asp Gln Ala Leu Gln Asn Asp Thr Val Phe Leu Asn
180 185 190

Met Arg Gly Leu Tyr Asp Val Val Ser Val Leu Arg Ile Ala Arg Thr
195 200 205

Pro Ser Val Asn Ile Gly Cys Cys Ile Glu Asn Val Leu Leu Gln Gln
210 215 220

Asn Leu Thr Val Gly Ser Gln Thr Gly Asn Asp Ile Gly Glu Arg Asp
225 230 235 240

Lys Ile Thr Glu Asn Pro Val Ser Thr Gly Glu Lys Asn Ala Ala Thr
245 250 255

Trp Ser Ile Leu Ala Val Leu Cys Leu Leu Val Val Val Ala Val Ala
260 265 270

Ile Gly Trp Val Cys Arg Asp Arg Cys Leu Gln His Ser Tyr Ala Gly
275 280 285

Ala Trp Ala Val Ser Pro Glu Thr Glu Leu Thr Gly His Val
290 295 300

<210> 19
<211> 322
<212> PRT
<213> Mus musculus

<400> 19

Met Gln Leu Lys Cys Pro Cys Phe Val Ser Leu Gly Thr Arg Gln Pro
1 5 10 15

Val Trp Lys Lys Leu His Val Ser Ser Gly Phe Phe Ser Gly Leu Gly
20 25 30

Leu Phe Leu Leu Leu Leu Ser Ser Leu Cys Ala Ala Ser Ala Glu Thr
35 40 45

Glu Val Gly Ala Met Val Gly Ser Asn Val Val Leu Ser Cys Ile Asp
50 55 60

Pro His Arg Arg His Phe Asn Leu Ser Gly Leu Tyr Val Tyr Trp Gln
65 70 75 80

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Ile	Glu	Asn	Pro	Glu	Val	Ser	Val	Thr	Tyr	Tyr	Leu	Pro	Tyr	Lys	Ser	85	90	95
Pro	Gly	Ile	Asn	Val	Asp	Ser	Ser	Tyr	Lys	Asn	Arg	Gly	His	Leu	Ser	100	105	110
Leu	Asp	Ser	Met	Lys	Gln	Gly	Asn	Phe	Ser	Leu	Tyr	Leu	Lys	Asn	Val	115	120	125
Thr	Pro	Gln	Asp	Thr	Gln	Glu	Phe	Thr	Cys	Arg	Val	Phe	Met	Asn	Thr	130	135	140
Ala	Thr	Glu	Leu	Val	Lys	Ile	Leu	Glu	Glu	Val	Val	Arg	Leu	Arg	Val	145	150	155
Ala	Ala	Asn	Phe	Ser	Thr	Pro	Val	Ile	Ser	Thr	Ser	Asp	Ser	Ser	Asn	165	170	175
Pro	Gly	Gln	Glu	Arg	Thr	Tyr	Thr	Cys	Met	Ser	Lys	Asn	Gly	Tyr	Pro	180	185	190
Glu	Pro	Asn	Leu	Tyr	Trp	Ile	Asn	Thr	Thr	Asp	Asn	Ser	Leu	Ile	Asp	195	200	205
Thr	Ala	Leu	Gln	Asn	Asn	Thr	Val	Tyr	Leu	Asn	Lys	Leu	Gly	Leu	Tyr	210	215	220
Asp	Val	Ile	Ser	Thr	Leu	Arg	Leu	Pro	Trp	Thr	Ser	Arg	Gly	Asp	Val	225	230	235
Leu	Cys	Cys	Val	Glu	Asn	Val	Ala	Leu	His	Gln	Asn	Ile	Thr	Ser	Ile	245	250	255
Ser	Gln	Ala	Glu	Ser	Phe	Thr	Gly	Asn	Asn	Thr	Lys	Asn	Pro	Gln	Glu	260	265	270
Thr	His	Asn	Asn	Glu	Leu	Lys	Val	Leu	Val	Pro	Val	Leu	Ala	Val	Leu	275	280	285
Ala	Ala	Ala	Ala	Phe	Val	Ser	Phe	Ile	Ile	Tyr	Arg	Arg	Thr	Arg	Pro	290	295	300
His	Arg	Ser	Tyr	Thr	Gly	Pro	Lys	Thr	Val	Gln	Leu	Glu	Leu	Thr	Asp	305	310	315
His	Ala																	

<210> 20
 <211> 143
 <212> PRT
 <213> Artificial sequence
 <220>

<221> misc_feature
 <223> Synthetic

<400> 20

Met	Leu	Pro	Gly	Leu	Leu	Phe	Leu	Leu	Ser	Ser	Leu	Ala	Glu	Glu	Val
1				5					10					15	
Ala	Met	Val	Gly	Ser	Val	Leu	Ser	Cys	Pro	Phe	Leu	Tyr	Val	Tyr	Trp
			20					25					30		
Gln	Val	Thr	Tyr	Pro	Ser	Asn	Val	Asp	Ser	Tyr	Asn	Arg	Ser	Met	Gly
		35					40					45			
Phe	Ser	Leu	Leu	Asn	Val	Thr	Pro	Gln	Asp	Gln	Phe	Cys	Val	Leu	Val
	50					55					60				
Leu	Val	Ala	Ala	Asn	Phe	Ser	Pro	Val	Ser	Ser	Glu	Thr	Thr	Cys	Ser
65					70					75					80
Asn	Gly	Tyr	Pro	Pro	Asn	Tyr	Trp	Ile	Asn	Thr	Asp	Asn	Ser	Leu	Asp
				85					90					95	
Ala	Leu	Gln	Asn	Thr	Val	Leu	Asn	Gly	Leu	Tyr	Asp	Val	Ser	Leu	Arg
			100					105					110		
Thr	Cys	Cys	Glu	Asn	Val	Leu	Gln	Asn	Thr	Ser	Gln	Gly	Lys	Lys	Leu
		115					120					125			
Ala	Val	Leu	Val	Ile	Arg	Arg	Ser	Tyr	Gly	Val	Glu	Leu	Thr	His	
	130					135					140				

<210> 21
 <211> 1370
 <212> DNA
 <213> Homo sapiens

<220>
 <221> 5'UTR
 <222> (1)..(165)

<220>
 <221> CDS
 <222> (166)..(762)

<400> 21
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 tatagggaaa gctggtacgc ctgcaggtac cgggccggaa ttcccggggtc gacccacgcg
 120
 tccgtgaaca ctgaacgcga ggactgttaa ctgtttctgg caaac atg aag tca ggc
 177

ctc tgg tat ttc ttt ctc ttc tgc ttg cgc att aaa gtt tta aca gga
225

Leu Trp Tyr Phe Phe Leu Phe Cys Leu Arg Ile Lys Val Leu Thr Gly

5 10 15 20

gaa atc aat ggt tct gcc aat tat gag atg ttt ata ttt cac aac gga
273

Glu Ile Asn Gly Ser Ala Asn Tyr Glu Met Phe Ile Phe His Asn Gly

25 30 35

ggt gta caa att tta tgc aaa tat cct gac att gtc cag caa ttt aaa
321

Gly Val Gln Ile Leu Cys Lys Tyr Pro Asp Ile Val Gln Gln Phe Lys

40 45 50

atg cag ttg ctg aaa ggg ggg caa ata ctc tgc gat ctc act aag aca
369

Met Gln Leu Leu Lys Gly Gly Gln Ile Leu Cys Asp Leu Thr Lys Thr

55 60 65

aaa gga agt gga aac aca gtg tcc att aag agt ctg aaa ttc tgc cat
417

Lys Gly Ser Gly Asn Thr Val Ser Ile Lys Ser Leu Lys Phe Cys His

70 75 80

tct cag tta tcc aac aac agt gtc tct ttt ttt cta tac aac ttg gac
465

Ser Gln Leu Ser Asn Asn Ser Val Ser Phe Phe Leu Tyr Asn Leu Asp

85 90 95 100

cat tct cat gcc aac tat tac ttc tgc aac cta tca att ttt gat cct
513

His Ser His Ala Asn Tyr Tyr Phe Cys Asn Leu Ser Ile Phe Asp Pro

105 110 115

cct cct ttt aaa gta act ctt aca gga gga tat ttg cat att tat gaa

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561

Pro Pro Phe Lys Val Thr Leu Thr Gly Gly Tyr Leu His Ile Tyr Glu
120 125 130

tca caa ctt tgt tgc cag ctg aag ttc tgg tta ccc ata gga tgt gca
609
Ser Gln Leu Cys Cys Gln Leu Lys Phe Trp Leu Pro Ile Gly Cys Ala
135 140 145

gcc ttt gtt gta gtc tgc att ttg gga tgc ata ctt att tgt tgg ctt
657
Ala Phe Val Val Val Cys Ile Leu Gly Cys Ile Leu Ile Cys Trp Leu
150 155 160

aca aaa aag aag tat tca tcc agt gtg cac gac cct aac ggt gaa tac
705
Thr Lys Lys Lys Tyr Ser Ser Ser Val His Asp Pro Asn Gly Glu Tyr
165 170 175 180

atg ttc atg aga gca gtg aac aca gcc aaa aaa tct aga ctc aca gat
753
Met Phe Met Arg Ala Val Asn Thr Ala Lys Lys Ser Arg Leu Thr Asp
185 190 195

gtg acc cta taatatggaa ctctggcacc caggcatgaa gcacgttggc
802
Val Thr Leu

cagttttcct caacttgaag tgcaagattc tcttattttcc gggaccacgg agagtctgac
862

ttaactacat acatcttctg ctggtgtttt gttcaatctg gaagaatgac tgtatcagtc
922

aatggggatt ttaacagact gccttggtac tgccgagtcc tctcaaaaca aacaccctct
982

tgcaaccagc tttggagaaa gccagctcc tgtgtgctca ctgggagtggt aatccctgtc
1042

tccacatctg ctctagcag tgcacagcc agtaaaacaa acacatttac aagaaaaatg
1102

A-579B.ST25.txt

ttttaaagat gccaggggta ctgaatctgc aaagcaaag agcagccaag gaccagcatc
1162

tgtccgcatt tcactatcat actacctctt ctttctgtag ggatgagaat tcctctttta
1222

atcagtcaag ggagatgctt caaagctgga gctattttat ttctgagatg ttgatgtgaa
1282

ctgtacatta gtacatactc agtactctcc ttcaattgct gaaccccagt tgaccatttt
1342

accaagactt tagatgcttt cttgtgcc
1370

<210> 22
<211> 199
<212> PRT
<213> Homo sapiens

<400> 22

Met	Lys	Ser	Gly	Leu	Trp	Tyr	Phe	Phe	Leu	Phe	Cys	Leu	Arg	Ile	Lys
1				5					10					15	

Val	Leu	Thr	Gly	Glu	Ile	Asn	Gly	Ser	Ala	Asn	Tyr	Glu	Met	Phe	Ile
			20					25					30		

Phe	His	Asn	Gly	Gly	Val	Gln	Ile	Leu	Cys	Lys	Tyr	Pro	Asp	Ile	Val
		35					40					45			

Gln	Gln	Phe	Lys	Met	Gln	Leu	Leu	Lys	Gly	Gly	Gln	Ile	Leu	Cys	Asp
	50					55					60				

Leu	Thr	Lys	Thr	Lys	Gly	Ser	Gly	Asn	Thr	Val	Ser	Ile	Lys	Ser	Leu
65					70					75					80

Lys	Phe	Cys	His	Ser	Gln	Leu	Ser	Asn	Asn	Ser	Val	Ser	Phe	Phe	Leu
				85					90					95	

Tyr	Asn	Leu	Asp	His	Ser	His	Ala	Asn	Tyr	Tyr	Phe	Cys	Asn	Leu	Ser
			100					105					110		

Ile	Phe	Asp	Pro	Pro	Pro	Phe	Lys	Val	Thr	Leu	Thr	Gly	Gly	Tyr	Leu
		115					120					125			

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His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Phe Trp Leu Pro
130 135 140

Ile Gly Cys Ala Ala Phe Val Val Val Cys Ile Leu Gly Cys Ile Leu
145 150 155 160

Ile Cys Trp Leu Thr Lys Lys Lys Tyr Ser Ser Ser Val His Asp Pro
165 170 175

Asn Gly Glu Tyr Met Phe Met Arg Ala Val Asn Thr Ala Lys Lys Ser
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Arg Leu Thr Asp Val Thr Leu
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Val Leu Thr Gly Glu Ile Asn Gly Ser Ala Asn Tyr Glu Met Phe Ile
20 25 30

Phe His Asn Gly Gly Val Gln Ile Leu Cys Lys Tyr Pro Asp Ile Val
35 40 45

Gln Gln Phe Lys Met Gln Leu Lys Gly Gly Gln Ile Leu Cys Asp
50 55 60

Leu Thr Lys Thr Lys Gly Ser Gly Asn Thr Val Ser Ile Lys Ser Leu
65 70 75 80

Lys Phe Cys His Ser Gln Leu Ser Asn Asn Ser Val Ser Phe Phe Leu
85 90 95

Tyr Asn Leu Asp His Ser His Ala Asn Tyr Tyr Phe Cys Asn Leu Ser
100 105 110

Ile Phe Asp Pro Pro Pro Phe Lys Val Thr Leu Thr Gly Gly Tyr Leu
115 120 125

His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Phe Trp Leu Pro
130 135 140

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Ile Gly Cys Ala Ala Phe Val Val Val Cys Ile Leu Gly Cys Ile Leu
 145 150 155 160

Ile Cys Trp Leu Thr Lys Lys Lys Tyr Ser Ser Ser Val His Asp Pro
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Asn Gly Glu Tyr Met Phe Met Arg Ala Val Asn Thr Ala Lys Lys Ser
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Arg Leu Thr Asp Val Thr Leu
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 20 25 30

Phe His Asn Gly Gly Val Gln Ile Ser Cys Lys Tyr Pro Glu Thr Val
 35 40 45

Gln Gln Leu Lys Met Arg Leu Phe Arg Glu Arg Glu Val Leu Cys Glu
 50 55 60

Leu Thr Lys Thr Lys Gly Ser Gly Asn Ala Val Ser Ile Lys Asn Pro
 65 70 75 80

Met Leu Cys Leu Tyr His Leu Ser Asn Asn Ser Val Ser Phe Phe Leu
 85 90 95

Asn Asn Pro Asp Ser Ser Gln Gly Ser Tyr Tyr Phe Cys Ser Leu Ser
 100 105 110

Ile Phe Asp Pro Pro Pro Phe Gln Glu Arg Asn Leu Ser Gly Gly Tyr
 115 120 125

Leu His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Leu Trp Leu
 130 135 140

Pro Val Gly Cys Ala Ala Phe Val Val Val Leu Leu Phe Gly Cys Ile
 145 150 155 160

Leu Ile Ile Trp Phe Ser Lys Lys Lys Tyr Gly Ser Ser Val His Asp
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Pro Asn Ser Glu Tyr Met Phe Met Ala Ala Val Asn Thr Asn Lys Lys
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Ser Arg Leu Ala Gly Val Thr Ser
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18

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